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10/822,612	04/12/2004	Christopher Ronnewinkel	13906-170001 / 2004P00091	3289
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FISH & RICHARDSON, P.C. PO BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER HWANG, JOON H	
			ART UNIT	PAPER NUMBER
			2166	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/822,612

**Applicant(s)**

RONNEWINKEL, CHRISTOPHER

**Examiner**

Joon H. Hwang

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2007.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-17 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/22/07.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. The applicant amended claims 1, 16, 17 in the amendment filed on 1/3/07.  
The pending claims are 1-17.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1, 16, and 17 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Objections***

3. Claims 1, 4, 8, and 16 are objected to because of the following informalities:
  - "the content of an incoming electronic message" in claim 1, lines 1-2, should be "a content of an incoming electronic message";
  - "the identified previous electronic messages" in claim 1, line 20, should be "identified previous electronic messages";
  - "the identified previous electronic message" in claim 4, line 2, should be "an identified previous electronic message";
  - "the identified previous electronic message" in claim 8, lines 3-4, should be "an identified previous electronic message";
  - "the content of an incoming electronic message" in claim 16, line 4, should be "a content of an incoming electronic message"; and
  - "the identified previous electronic messages" in claim 16, line 19, should be "identified previous electronic messages".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1 and 16 recite the limitations of "each link is associated with a predefined question, and wherein each selected category connects to at least one of the root categories through a series of links for which each associated predefined question evaluates as true for the received information about the content of the IEM" (lines 11-14 for claim 1 and lines 10-13 for claim 16) are not supported by the specification. Claims 2-15 are likewise rejected.

Claim 17 recites the limitations of "each link is associated with a predefined question, and wherein each identified node is connected to at least one of the root nodes through a series of the link for which each associated predefined question evaluates as true for the received content information" (lines 11-13 for claim 17) are not supported by the specification.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-13 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pak et al. (U.S. Publication No. 2004/0260534) in view of Goedken (U.S. Publication No. 2002/0133494).

With respect to claim 1, Pak teaches classifying the IEM using query-based classification to select at least one category that relates to the content of the IEM (i.e. classifying an e-mail request message, fig. 4 and section 68 on page 6). Pak teaches receiving information about the content of an incoming electronic messages (IEM) (i.e., analyzing the message, sections 39-40 on page 3 and fig. 2). Pak teaches selecting one or more categories in a categorization scheme, the categorization scheme defining links among at least one root category and a plurality of sub-categories such that each sub-category connects through one of the links as a child category of one of the root categories or another one of the sub-categories, wherein each link is associated with a predefined question, and wherein each selected category connects to at least one of the root categories through a series of links for which each associated predefined question evaluates as true for the received information about the content of the IEM (i.e., determining one or more categories, fig. 1, sections 38 and 41 on page 3, sections 43

and 46 on page 4, sections 53-54 on page 5, section 73 on page 7). Pak teaches retrieving from a data storage element one or more business objects associated with at least one of the selected categories and the identified previous electronic messages (i.e., retrieving business related materials associated with a selected category, section 45 on page 4, section 38 on page 3, section 54 on page 5, and section 75 on page 7). Pak does not explicitly disclose classifying the IEM using an example-based classification algorithm. However, Goedken teaches classifying the IEM using an example-based classification algorithm to search through a set of stored previous electronic messages, each stored previous electronic message being associated with at least one of the selected categories, to identify at least one stored previous electronic message that relates to the content of the IEM (i.e., searching for similar previous messages, section 159 on page 19, fig. 9, fig. 11, fig. 13, and fig. 15) in order to provide more responsive and accurate information (section 47 on page 5). Therefore, based on Pak in view of Goedken, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Goedken to the system of Pak in order to provide more responsive and accurate information.

With respect to claim 2, Pak teaches identifying at least one business object that is associated with the selected category (section 45 on page 4, section 38 on page 3, section 54 on page 5, and section 75 on page 7).

With respect to claim 3, Pak teaches recommending the identified at least one business object (section 21 on page 2, section 45 on page 4, sections 37-38 on page 3, section 54 on page 5, and section 75 on page 7).

With respect to claim 4, Goedken further teaches identifying at least one business object that is associated with the identified stored previous electronic message (section 159 on page 19, fig. 9, fig. 11, fig. 13, and fig. 15). Therefore, the limitations of claim 4 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 5, Pak teaches recommending the identified at least one business object (section 21 on page 2, section 45 on page 4, sections 37-38 on page 3, section 54 on page 5, and section 75 on page 7).

With respect to claim 6, Pak teaches evaluating content of the IEM using pre-defined queries associated with each of a plurality of pre-defined categories in a categorization scheme and selecting a category for which one of the pre-defined queries evaluates as true (i.e., a category associated with text, fig. 1, sections 38 and 41 on page 3, sections 43 and 46-47 on page 4, sections 53-54 on page 5, section 73 on page 7).

With respect to claim 7, Goedken further teaches comparing the IEM with the set of stored previous electronic messages and determining which stored previous electronic messages in the set of stored previous electronic messages are most similar to the IEM (section 159 on page 19, fig. 9, fig. 11, fig. 13, and fig. 15). Therefore, the limitations of claim 7 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 8, Pak teaches identifying at least one business object that is associated with the selected category (section 45 on page 4, section 38 on page 3,

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section 54 on page 5, and section 75 on page 7). Pak does not explicitly disclose identifying at least one business object that is associated with the identified stored previous electronic message. However, Goedken teaches identifying at least one business object that is associated with the identified stored previous electronic message (section 159 on page 19, fig. 9, fig. 11, fig. 13, and fig. 15). Therefore, the limitations of claim 8 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 9, Goedken further teaches recommending business objects that are associated with both the selected category and the identified stored previous electronic message (section 159 on page 19, fig. 9, fig. 11, fig. 13, and fig. 15). Therefore, the limitations of claim 9 are rejected in the analysis of claim 8 above, and the claim is rejected on that basis.

With respect to claim 10, Goedken further teaches recommending business objects that are associated with at least one of the selected category and the identified stored previous electronic message (section 159 on page 19, fig. 9, fig. 11, fig. 13, and fig. 15). Therefore, the limitations of claim 10 are rejected in the analysis of claim 8 above, and the claim is rejected on that basis.

With respect to claim 11, Pak teaches the IEM is an e-mail (fig. 4 and section 68 on page 6).

With respect to claim 12, Pak teaches the IEM is received via Internet self-service (fig. 5).



With respect to claim 13, Goedken further teaches providing a recommendation based on both the selected category and the identified at least one stored previous electronic message (section 159 on page 19, fig. 9, fig. 11, fig. 13, and fig. 15). Therefore, the limitations of claim 13 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

The limitations of claims 16-17 are rejected in the analysis of claim 1 above, and these claims are rejected on that basis.

8. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pak et al. (U.S. Publication No. 2004/0260534) in view of Goedken (U.S. Publication No. 2002/0133494), and further in view of Kawatani (U.S. Patent No. 7,185,008).

With respect to claims 14-15, Pak and Goedken disclose the claimed subject matter as discussed above except k-nearest neighbor algorithm and support vector machine algorithm. However, Kawatani teaches a k-nearest neighbor algorithm (for claim 14) and a support vector machine algorithm (for claim 15) (lines 1-50 in col. 1) in order to classify data (lines 1-50 in col. 1). Therefore, based on Pak in view of Goedken, and further in view of Kawatani, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Kawatani to the system of Pak in order to classify data.

### ***Conclusion***

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9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 571-272-4036. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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3/16/07